

# CHAMBERS'S JOURNAL

OF

POPULAR

## LITERATURE, SCIENCE, AND ART

*Fifth Series*

ESTABLISHED BY WILLIAM AND ROBERT CHAMBERS, 1832

No. 360.—VOL. VII. SATURDAY, NOVEMBER 22, 1890.

PRICE 1½d.

### ATLANTIC ICE.

Of all the incidental difficulties and dangers that beset the navigation of the North Atlantic, there is none that causes so much anxiety to the mariner as detached ice, whether existent in the form of floes or bergs. The season of 1890 will long be remembered in the nautical and scientific world as being quite phenomenal in regard to the quantity of ice reported, and the geographical limits within which it has been encountered. But it is by no means easy to obtain definite information on the subject. It is true that the regular Atlantic liners carefully note and report the position of the ice encountered by them; yet, until the laws that govern the magnitude and the range of the Atlantic drift-ice are more accurately known, such reports do little else than sound a note of alarm to the navigator, apprising him of the existence of a danger, but leaving him quite in ignorance as to the locality where it may next be encountered. In ordinary seasons, it is assumed that the detachment of the bergs from the parent glaciers in Greenland does not take place until May is well advanced; that when free from the ice that has covered land and sea alike during the Polar winter, they set out on a southerly journey into the warmer waters of the Atlantic, slowly urged on their voyage by the chill waters of a cold drift-current that ever flows through the depths of the Atlantic from Pole to equator. It is strange that the language of agriculture should be requisitioned to describe phenomena so distinctly antagonistic as that presented by Arctic ice. An expanse of ice resting upon and covering the sea with a coating of uniform thickness is spoken of as an *ice-field*; while the process of severance whereby a berg is detached from the glacier is alluded to as *calving*. The calving process, however, would seem to have occurred at a much earlier date this year than in previous seasons, for as early as April 22, the steamer *La Gascogne*, while on a voyage from New York to Havre, reported passing three icebergs, all of great size, in latitude 42° 51' north. For icebergs

to have reached so far south at such a date is most remarkable, and as far as our present knowledge of the climatic conditions of the Arctic ice regions is concerned, quite unexplainable. During the months of May and June hardly a voyage was made across the North Atlantic without ice being reported, many steamers having to make most lengthy detours to avoid it; and several firms, with a praiseworthy prudence, mapped out a much more southerly course for the vessels of their fleets, wisely choosing a longer passage, than run the risks of collision with field or berg ice.

The progress of a berg from its home in a Greenland fiord, down through Davis Strait and along the desolate shores of Labrador, is necessarily a very tardy one. Passing Labrador, they glide slowly over the Banks, losing no inconsiderable portion of their bulk whenever they strand in the shallows of that region. Even when an iceberg has its base deeply embedded in the sea-bed, the check to its voyage is often but of short duration. The restlessness of the sea, the influence of the tides, and the ever-constant propelling influence of the Labrador current, soon effect its release, and onward it glides in ghostly majesty, its base hidden in the depths of the ocean, and its pinnacled summit shrouded in an impenetrable mist. The detached fragments, the broken snouts of the berg, severed by friction with the ocean floor, freeze again to the sides of the berg as it pursues its southerly course, like a monster ship of ice surrounded by a flotilla of attendant shore-boats. From Newfoundland the moving ice follows the trend of the North American shore, gradually decreasing in mass, until, reduced to a liquid, it is lost in the waters of the surrounding ocean. The dissolution, however, takes a considerable time to accomplish. The two melting forces, the warm air and warm water, into whose influence the berg advances, receive a very material check by reason of the air and water which are in immediate contact with the berg. As the ice slowly melts, *fresh* water will result, and this, by virtue of its lesser specific gravity,

floats upon the surface of the ocean. The temperature of this surrounding area of fresh water will be very little if anything above the freezing-point. The air above this zone of fresh water will naturally take the same temperature, while that contiguous to the berg itself takes the temperature of the berg; so that the iceberg is surrounded with an aerial and water blanket many degrees below the normal temperature of the region through which the berg passes. Aided by these hindrances to a speedy dissolution, icebergs have been known to float as far south as the latitude of Gibraltar before they have wasted away. The envelope of fog that surrounds that part of the iceberg above the sea-level, chilling as is its effect upon the ocean voyager, is not an unmixed evil, for its presence often serves to notify the proximity of ice. The condensation of the aqueous matter present in the atmosphere is not the only warning that the navigator receives of his approach to ice. Many shipmasters aver that the human body is peculiarly sensitive in this respect, and the damp, penetrating chilliness, which once experienced is never forgotten, affords an infallible index of the vicinity of berg or field ice. In the language of the *Ancient Mariner*:

And it grew wondrous cold,  
And the mast high came floating by  
As green as emerald.

Unfortunately, however, in these days of keen competition and rapid passages, navigators cannot regard such vague premonitions with the importance they deserve; they serve, however, to advise a careful man that danger may lurk in the dense fog that surrounds him, and he prepares to meet it accordingly. Some idea of the extent of these fog-areas may be gathered from the fact that vessels steaming from twelve to fifteen knots have taken from one to three days to sail through them, and that without making any appreciable reduction in their speed. It must not be lost sight of that ships have undoubtedly traversed these fog-patches without encountering ice or any trace of it, and that, too, when the very centre of the fog-zone has been pierced. The explanation, however, no doubt is, that the process of liquefaction, whereby the berg has been transformed from ice to water, has just been consummated, and that the resultant icy waters have chilled the warmer superincumbent atmosphere, rendering its vapour visible as a dense mist or fog.

The season of 1889 was one of comparative immunity from Atlantic ice-dangers. Why the succeeding year should be so prolific of both berg and field ice is as yet unexplainable. It is suggested, however, that the prevalence of severe northerly gales during the whole of December and part of January 1889-90 contributed not a little to set the ice free in larger quantities and at an earlier date than usual. Another peculiarity of the 1890 season is the remarkable fact that the ice has penetrated farther eastwards than it has been known to do before. The master of the sealing-vessel *Terra Nova*, while on a voyage from Newfoundland to Dundee, encountered many large bergs, one of the largest being found in  $50^{\circ}$  north and  $41^{\circ}$  west. Subsequent reports show that both field and berg ice have been met with even two degrees farther eastwards than the

position cited above. This eastward extension of the ice during 1890 may have been caused by some abnormal influence of the Labrador current, or by the supposition that bergs may have entered upon the drift of the Gulf Stream before they had been melted, and were in consequence slowly carried to the northward and eastward. The locality in which the ice has been thickest is that where the Labrador current impinges upon the waters of the Gulf Stream. Here both currents become considerably enfeebled, and the bergs accumulate in consequence. In spite of such an abundance of ice, maritime disasters therefrom have been most rare. No higher tribute can be paid to the prudence and skill of North Atlantic navigators than to state that no serious calamity by ice collision has occurred, and except in one or two instances, the regularity and punctuality of Atlantic voyages have not been interfered with. Perhaps the nearest approach to a disastrous collision with a berg was that experienced by the *Normannia*. Between latitudes  $46^{\circ} 29'$  and  $45^{\circ} 20'$  north, and longitudes  $42^{\circ} 22'$  and  $48^{\circ}$  west, no fewer than twenty-five icebergs were descried, and with one of these the ship collided.

Fortunately, the damage was trivial, and all above the water-line. It was during a dense fog that the iceberg was suddenly sighted, and before the reversal of the engines had time to take the way off the ship, she struck it broadside on. The passengers scarcely felt the shock, for the vessel immediately glanced off the berg into clear water. A little less vigilance and a little less promptness on the part of the captain and crew of the *Normannia*, and she had no doubt gone to swell the ranks of the missing. A similar accident, the disastrous consequences of which were averted in a similar manner, befell the *Thingvalla*. In the case of the *Beacon-Light*, an Atlantic liner provided with a powerful search-light, the collision was of a somewhat more serious nature. Her log reports: 'During a heavy fog at midnight an immense iceberg was discovered towering above the ship not seventy-five feet away. Orders were given to alter the helm and reverse the engines, but not altogether in time to clear the berg, which was struck by the starboard bow of the steamer. A large quantity of ice was dislodged, and the ship was considerably damaged, but brought safely into port.' Collision with the berg is not the only danger to be feared from a too close propinquity with an iceberg. Exposure to an atmosphere many degrees warmer than itself causes the ice to assume a spongy character, highly favourable to the severance of fragments of all sizes upon the least disturbing influence being brought to bear upon it. The vibration of the air caused by the sounding of a steamer's whistle has been known, in the case of 'porous ice,' to detach large masses from the berg; while a gun fired in the neighbourhood of a similar berg produced atmospheric concussion sufficient to bring down enough ice to destroy any vessel upon which it fell. It must be borne in mind, however, that the severance above alluded to was only effected with bergs the ice of which was 'spongy and rotten.' Below the water-line the changes in the ice-mass are much to be feared by a vessel that happens to be near when they occur. The detachment of huge blocks often shifts the

position of a berg's centre of gravity, with the result that the iceberg immediately capsizes, crushing everything in its immediate neighbourhood.

As far back as 1875, the adoption of steam lanes a considerable distance to the southward of the usual course of Atlantic liners was advocated ; and it is satisfactory to observe that common prudence impels mariners to cross the 50th meridian during the months of March, April, May, and June, at a point much farther to the south than their point of intersection during the other months of the year. Many firms, however, do not rely too much upon the discretion of their commanders, but carefully procuring all the available information relative to the quantity and drift of the ice, they map out a course for them accordingly.

The pilot chart issued in June by the United States Hydrographical Department indicated that the prudent course for vessels proceeding eastwardly was to cross longitude forty-seven degrees at latitude forty degrees north. The westerly course is to cross the same longitude at latitude thirty-nine degrees. The adoption of such precautionary measures has no doubt done much to minimise the risks of ocean voyaging during the ice-season ; but the question naturally arises, cannot anything be devised which shall give the mariner sufficient warning of the proximity of ice? Up to the present, nothing of a reliable nature has yet been invented. The most powerful electric search-lights were inefficient in the case of the *Beacon-Light* to reveal danger until it was but some seventy-five feet away. It has been suggested, however, that by means of a thermopile and a galvanometer, and an ordinary mercurial thermometer for recording the temperature of the surrounding atmosphere, a very effective ice-indicator can be made. A movable contact-breaker should be fitted to the galvanometer, and this should be set at a point considerably below the temperature recorded by the thermometer. When the mercury in the thermometer falls to the point at which the movable contact-breaker of the galvanometer is placed, the thermopile by means of an electric alarm-bell notifies this fact, and this sudden fall in the temperature suggests that the fog-bank conceals an iceberg. In the case of a sudden fall in the temperature, the warning of the thermopile would prove invaluable ; but it is by no means satisfactorily established that the envelope of cold air surrounding an iceberg is separated from the normal air of the region outside the area of the berg's influence by so definite a line of demarcation as a sudden diminution of temperature of ten degrees. It is more probable that the transition from the normal temperature to the cold air in juxtaposition to the berg is an extremely gradual one ; and in that case ordinary observation would prove almost as efficacious as the somewhat elaborate plan alluded to above. Such dangers as field and berg ice entail upon the navigator can hardly have failed to call into existence a host of suggestions as to the best way of removing them. That which has occurred to many is that a vessel of war should be employed to patrol the Atlantic and destroy by firing upon or other means any berg it may encounter. The idea of enlisting the forces of

war to facilitate the commerce of the nation is not without its attractiveness. Unfortunately, however, such a scheme meets with no favour from practical men. It must not be forgotten that the specific gravity of ice as compared with water is as '9 to 1, so that something like nine-tenths of the mass of the berg is below the sea-level. The destruction of the pinnacled summits of the berg would simply mean the reduction of the berg to a more compact form, and the consequent lessening of the visible area of the iceberg.

An iceberg with a summit rising some ninety or a hundred feet above the sea is undoubtedly a great danger to safe navigation ; but except when obscured by fog, it is a danger that reveals itself for a considerable distance. A mass of ice, however, over which the sea washes, or which is elevated above the waves but to the height of ten or fifteen feet, is a danger much more to be feared. The difficulty is clearly one in which prevention is the best cure. A fleet of ocean patrols could easily determine the quantity of ice, and the rate of its drift, that was likely to intersect the trade routes across the North Atlantic. Such knowledge rapidly and widely disseminated by means of despatch-boats and the electric telegraph, would do much to reduce ice-dangers to a minimum. There is one other phase of Atlantic ice-phenomena that stands in need of elucidation. It has been proved beyond doubt that of the bergs carried southwards by the Labrador current, some find their way back to what has aptly been termed the 'Palaeocystic Sea.' The direction that such bergs take, and the course they must drift to avoid the continuance of the southerly direction that must sooner or later result in the liquefaction of the largest bergs, are at present shrouded in mystery. It is matter for discussion whether the surface-drift of the Gulf Stream is sufficient to deflect a berg to the northward and eastward. The solving of these problems is calculated to benefit in the highest degree possible the North Atlantic trade, for it is a phase of marine exploration that will go far to develop the truth of the aphorism, 'The seas but join the nations they divide,' and so knit closer together the great English-speaking peoples separated by the waters of the Atlantic Ocean.

#### THE LAST KING OF YEWLE.

##### CHAPTER IV.—A STARTLING DISCOVERY.

THE secret which the doctor suspected was weighing on the old butler's mind so oppressively that Francis Gray found little difficulty in inducing him to relieve himself by revealing it. It was a blow to the young man, the nature of which Stokes did not comprehend.

'I was fastening up last night, Mr Gray,' he said, 'a little after the clock struck twelve, and I opened the Hall door to have a look at the night before going to bed. I no sooner stepped out than I saw a man cross quickly—though it was pretty dark and my eyesight is none of the best—from the holly clump to the shrubbery on the left. As the thing didn't look honest, it was my duty to see into it, and I knew the master, with his

casement open, was close at hand if help was wanted. So I walked along on the grass border, and came upon him unawares. You may imagine my amazement, Mr Gray, when I discovered it was Mr Charles.'

Gray, with his elbows resting on his knees and his head bent, made no reply.

Stokes, at considerable length, continued the account of the meeting. As soon as he recognised Stokes, the vicar's fears were allayed, for he knew the loyalty of the old servant. He explained that he had only stolen there in the night to take a last farewell of his wife and child and his brother, before fleeing the country for ever.

'Another year of it would have killed me, Stokes,' he had said; 'ay, half a year. I have just come from the vicarage, and I know I can go in to Rowan through the casement—I see by the light he is still there.'

Pressing some money into the butler's hand—ten pounds it proved to be, a new Bank of England note—the vicar bade him farewell, imploring him with his last words to be silent, or his chances of escape would be lost.

'I know the secret is as safe with you, Mr Gray, as with the dead; and with God's help, Mr Charles will soon be out of their reach!'

'He did not tell you where he was going?'

'No; he'd have told master that. Woe is me, Mr Gray, but it would be a double misfortune to the house if he was caught!'

'You did not see him leave, I suppose?'

'I went straight to bed, after seeing the place secure.'

'I am glad you have told me this, Stokes. We must be most careful in keeping the secret, for several reasons. I should not wish even Dr Hayle to know it, though he is as loyal as you or I. But the fewer persons that have a secret, you know, the safer it is.'

'That's true, Mr Gray.—But I'm sorry I took the money from Mr Charles. I didn't know what I was doing; and likely enough—unless Mr Rowan supplied him—he'll want it more than me.—I am thinking,' he added in an earnest whisper, 'that the suddenness of Mr Charles's visit, and the way matters was with him, may have been the cause of—you know,' he said, pointing in the direction of the study.

To this view of the cause of Rowan King's fatality, Gray made no objection; but he suggested to the butler the danger of retaining that bank-note, as bank-notes were things that could be traced.

'Then I'll burn it!' exclaimed Stokes, taking forth the note from his pocket.

'That would be waste of money, Stokes. Give it to me, and I shall know how to dispose of it safely.'

Stokes did so; and notwithstanding his compunction for having accepted the money, was by no means displeased to receive ten sovereigns from Gray in exchange for it.

It was now late in the afternoon; and Gray, walking presently up and down the portrait-gallery, and now and then halting to contemplate the picture of Lady Florence, was harassed with the thought of the two ladies at the vicarage. It was cruel to leave them alone; but how could he comfort them? He could indeed, and

would, conceal from them the knowledge that Charles King had been at the Hall after leaving them, and had entered his brother's study from the grounds. But the consciousness of this dire secret, and that the examination next day would disclose the dreadful truth about Rowan King's tragic death, would unfit him as a comforter.

How far the secret of the vicar's visit would be kept—five persons already knew it, and there was no knowing whether others had seen or recognised him in the neighbourhood—was the keenest anxiety of all. Would the police be able to trace his steps from Portland to Yewle? If they suspected that he had been at Yewle, there was little doubt they would succeed in this.

As to any motive Charles King could have for taking his brother's life, the question seemed to Gray to be beyond the scope of human reason. Who could read and follow the dark workings of a mind unhinged by terrible wrong and punishment? And what might have passed last night between the brothers—if, indeed, anything at all passed—would never be known.

He wished above all to warn Mrs King and Agnes of the danger of speaking of that visit; but how was he to do so without at the same time revealing his own horrible fear? The same fear had blanched Mrs King's face that morning, and he recoiled from reviving it—shrank most of all from awakening even a suspicion in the mind of Agnes.

While turning over these thoughts, Gray walked out into the grounds, and quite unconsciously proceeded slowly in the direction of the vicarage. When he discovered himself there, separated from the garden by a wall five feet high, he paused to think what he should do. For the first time he felt the sharp pang of jealousy. The pain was made all the sharper by the situation in which he now found himself. Richard King had come there that morning to comfort them, and he was free from that burden which Francis Gray had to carry locked in his breast, and which so unfitted the young man for the office of a comforter. He could not act a false part, and he dared not disclose what he knew. Nor was he unmindful of the fact that his residence at Yewle was nearly at an end—that with the consignment of Rowan King's body to the coffin which had lain for years in the house of the dead awaiting it, his presence would be no longer required in Yewle. Mr Richard King would be master.

With a sad heart, Gray was glad now that he had not had an opportunity the previous night of saying to Agnes King the rash words he had meditated. There would be no going away now, except for him; they would remain at Yewle; and by-and-by, when time should have softened their troubles, Richard King would win his suit, and Agnes would be mistress of Yewle. But at this point the blood rose in his face and he clenched his fingers angrily. 'Better she were dead,' he muttered through his teeth; 'yet, oh, how powerless and unfortunate I am!'

He was standing on the trunk of a fallen tree—which had many and many a time been his stepping-stone in crossing the garden wall of the vicarage—and with his arms resting on the wall and his chin on his hands, he was staring straight before him, seeing nothing. In

this situation he was presently startled by hearing voices approaching through the garden. The shrubs and bushes concealed the speakers from his view ; but before the thought of moving came into his mind, he saw them, and was held to the spot by a spell which he was without the power to resist. The speakers were Agnes King and Richard King. They were walking slowly, close together ; the girl's head was hanging forward on her bosom, and King leaned over her, speaking earnestly in a low voice. When they were a few yards from the end of the garden, the girl looked up in her companion's face and halted. Gray could see the working of some powerful emotion in her bosom, by its quick rising and falling ; but her face was absolutely colourless, and not in her most radiant hours did he ever remember to have seen her look so beautiful. She spoke, notwithstanding her agitation, in low, clear, and firm tones, that showed how strongly her will was concentrated in them.

'Yes,' she said, 'yes—if you do that. For ever and for ever, if you clear my father's name. I shall be but a poor reward for so precious a deed !' As she spoke, she raised her clasped hands as high as her face, and then dropped them before her ; and Richard King lifted them to his lips, and gazing cravingly in her upturned face for a moment, turned and went away.

The spell was broken now, and Francis Gray felt that his heart was broken too, as he dropped down on the soft turf, and went back, dazed with sorrow, to the gloomy and silent Hall. The only clear idea in his mind was to obtain the key of the study from old Stokes, and pass the night in darkness with his dead friend. For the dead was more to him now than the living ; outside that dark room where Rowan King's body still sat in the deep chair, Gray had no friend in the world. In a day or two he should have passed the confines of that tremendous solitude, there to be quickly lost, and as soon forgotten by the few who had known him at Yewle.

These were the gloomy and morbid thoughts which filled him, when, on reaching the door, a note was handed to him by a messenger who had arrived there just before him. It was from Mrs King, asking him to come over to the vicarage and stay with them for an hour or two, as they were alone. There was a pathetic appeal in the simply-worded request which touched him, in spite of the bitterness in his heart.

'Tell Mrs King that I am coming,' he said to the messenger ; and then, without further thought, yielded to the nobler instincts of his nature and slowly followed the man.

'It is no time for these griefs,' he said, half aloud. 'God help them ! Their trouble is greater than mine, and they are unconscious of the terrible blow that is suspended over their poor heads, and may fall even to-morrow ! No ; I will comfort them, if I can, and conquer my own sorrow, at least till this thing is over and I may go away.'

Mrs King was standing at the vicarage door, looking out for him ; and as he approached, he noticed more composure in her features than had been the case in the morning. With a grateful smile she gave him her hand, and they went in.

Agnes was sitting in the recess of a window, with the unheeded work lying in her lap.

'It is so good of you to come to us, Frank,' said Mrs King.

Agnes turned her head, and Gray could not help looking in her face with a melancholy interest. She smiled to him ; and his heart was struck by the expression of wistful sorrow with which the girl's eyes met his for a moment. After this, she bent over her work and kept on sewing.

'Richard King has been here,' said Mrs King when they sat down ; 'and he has taken a weight off our minds, though it is still very dreadful. Richard, you know, was partly trained for the medical profession before he went into the bank ; and he says that, from a close examination, he is convinced that Rowan died of heart disease.'

Gray remembered that the 'close examination' was made from a distance of six feet, according to the account of Stokes ; but he made allowance for a natural desire on the part of Richard King to give comfort to the poor ladies, even by a fiction.

'Perhaps he is right,' replied Gray ; 'to-morrow will settle the point. Not,' he added with a sigh, 'that it matters much now ; Mr Rowan is dead. There will be another King in Yewle in a few days.'

'You mean Richard ?'

'Yes. Of course, if matters had been happily otherwise—'

'No,' she gently interrupted ; 'if the happy day ever comes—as in God's mercy and justice I trust it will—that removes the stain from my poor husband's name, this house will be his home. He would not be happy elsewhere. Yewle would be nothing to him ; it is far better as it is, or as it will be. Rowan had regarded Richard King as his heir for a long time.'

'I am aware of that ; he was speaking of it to me only yesterday. No doubt it will be best.'

There was a pause of a few minutes, and Mrs King was the first to speak. Fixing her eyes anxiously on the young man, she said, with some hesitation : 'And you, Frank—how will it be with you ?'

'Why, Mrs King,' he at once replied, 'I have lost my friend, and of course I must leave Yewle. I suppose I may stay until I have seen the last of him ; then I shall go.'

'We shall miss you greatly, Frank,' said Mrs King, with tears standing in her eyes. Then she suddenly rose and left the room, saying something about tea.

As soon as he was alone with Agnes, Francis Gray felt his tongue tied. He could not find a word to say, and in his embarrassment walked over to a window and stared out on the little lawn. He did not know that as he did so the girl looked up and followed him sorrowfully with her eyes ; he was unconscious that she was still looking at him, with the same touching expression, all the time he stood there.

The sound of her voice made him turn quickly. 'Frank,' she said—she was again bent over her work—'where are you going to ?'

'To London, I suppose, Agnes—where everybody goes who has nowhere else to turn to.'

'What will you do in London ?'

'Whatever I find to do. I daresay I shall find

something ; most persons do who are in earnest about it.'

'And shall we really never see you again ?' she asked, looking up with eyes of earnest interest.

'Never is a long time, Agnes. Who can tell ? But—but I shall hardly come to Yewle again.—I have been too happy at Yewle,' he added, after a pause, with his eyes on the carpet, 'to give myself the pain of revisiting it. And I shall have work to do, I suppose.'

She was silent now, thinking. What were the girl's thoughts ? They were not to be read in her pale impassive face, and in spite of the knowledge that all hope was lost to him now, he sighed when he looked at her.

'Will you not write to us ?' she asked, in a low voice, without raising her eyes.

'Yes ; I will write to your mother, Agnes ; it is the least return I can make for the happy days I have spent in the vicarage.'

There was a change now, in the deep conscious colour that sprang to the girl's face and temples. Fortunately, Mrs King returned at that moment, with the maid bringing tea ; and no further embarrassments occurred during the evening. How it was, Gray could not clearly remember afterwards ; but with that heavy secret in his breast, which he feared every minute some chance word might touch, there was not another reference made to the subject of Rowan King's death. Richard King's assurance seemed to have laid all apprehensions.

It was night when Gray returned to the Hall, and there was just a faint gray shimmer in the sky sufficient to reveal the dim outlines of objects near. He felt reluctant to enter the cheerless mansion, but pacing to and fro for a few minutes in the grounds, he felt it quite as cheerless outside. Before going in, however, he went round to where the study was, and laid his face against the glass. There was no light within ; but after a while he was able to discern the dark object reclining in the chair, and, overcome for the first time by his emotions, he moved away, shedding tears like a girl. He never knew, so keenly as now, how deeply he had loved his dead friend, and how many reasons he had had for loving him.

Sleeping none till close on dawn, Francis Gray was roused at ten o'clock by a knocking at his door. It was Stokes, in a state of suppressed agitation, the cause of which Gray knew quite well. The coroner and the jurymen and all the rest were in the house, and the post-mortem, so deeply dreaded by old Stokes, was now imminent. For another reason, it was dreaded still more by Francis Gray.

Hastily dressing, the young man went down, and found that the coroner had already opened his court in the dining-room. The jury were being sworn. Mr Richard King was there, and the family solicitor ; but Dr Hayle was absent ; the others, Gray did not know.

Presently two medical men arrived. One was the local doctor, who had succeeded Dr Hayle on his retirement from practice ; the other was a surgeon from Southampton. They took their seats apart ; and even in the tense anxiety of the moment, Gray could scarcely repress a smile when he observed the look with which Stokes was regarding them from the doorway.

The coroner informed the jury that their first duty would be to view the body which was to be the subject of their inquiry ; then, after taking some formal evidence, the court would have to adjourn, pending the result of the post-mortem examination.

'The body of the deceased gentleman,' added the coroner, 'is still in the same place and position in which it was first discovered, and has in no way been disturbed, which is quite proper. The room has been kept locked, and the key retained in the custody of the butler, an old and faithful servant of the family.'

Stokes made a singular and doubtless involuntary grimace in response to this compliment ; and, followed by coroner and jury, led the way to the study. Once, the old man glanced over his shoulder, and seemed to gain strength from the discovery that the doctors were not in the crowd. Opening the door, he flung it wide ; but before any person could discover the cause, Stokes trembled violently, and throwing up his hands with a cry, exclaimed : 'Lord 'a mercy ! master's gone !'

The astounded crowd crushed to the door and looked. The chair was empty and the casement open.

#### CROWN SALMON-FISHINGS IN SCOTLAND.

THE official returns of the quantity of salmon which reached Billingsgate market in 1889 from the British Isles furnish striking evidence of the superiority of the Scotch fishings over those in England, Wales, and Ireland. Out of a total of thirty-one thousand boxes, more than two-thirds were supplied by Scotland, where, it is perhaps not generally known, there is no such thing as a public right of salmon-fishing, the conditions of the law on the subject in that country being entirely different from those in force in other parts of the United Kingdom. Save in Scotland, all salmon-fishings in rivers and estuaries which are both tidal and navigable, and in the territorial seas, except those fishings which belong to private persons and corporations, and are held by express grant from the Crown or by prescription, are vested in the Crown as trustee on behalf of the public, who, subject to statutory regulations, have a common-law right to fish for salmon in such waters. In inland waters which are neither tidal nor navigable the Crown seems to have no rights, the riparian owners being *prima facie* owners of the fishings opposite or within their lands. It is otherwise in Scotland, where the Crown is held to be vested in all salmon-fishings in the sea, estuaries, and inland waters, as a matrimonial or beneficial right, forming part of its hereditary revenues, so far as such rights have not been expressly granted by the Crown. They extend on the open coast to at least three miles seaward, which, by international law, belongs to the coast of the country, as capable of being kept in perpetual possession. This was established by a decision of the House of Lords in

1859 ; prior to which date the revenue was merely nominal, for the fishings in rivers then and still belonging to the Crown are probably of little value.

From a very early time, salmon-fishings have been granted by the Crown ; and from the Union to the year 1832—during which period they were under the management of the Scotch Barons of Exchequer—it was the practice to grant the proprietors of lands adjoining the seashore the right of fishing in front of their property for a small sum. The grants, however, were not so numerous as those of fishings in rivers, and there is still a large extent of coast where salmon-fishings belong to the Crown, notably in the counties of Ayr, Wigton, Kirkcudbright, Berwick, Haddington, Midlothian, Fife, Forfar, Kincardine, Aberdeen, Ross, and Caithness, and the island of Mull. There is little doubt that, in addition to those fishings derived by subjects by express grant, there have been very many acquired by prescription, following on an imperfect written title. The Crown has been at a disadvantage in having no local authority to watch its interests. Titles, more especially in remote districts, have been completed by acts of possession of a character attracting little attention, but which would have been interrupted had there been any one on the spot to guard against them.

In the reign of William IV., the Crown fishings were vested in the Commissioners of Woods and Forests, and for some time past there have been complaints in parliament and elsewhere against their management, the main allegations being interference with the industry of local fishermen, undue favouritism of proprietors of adjacent lands to the detriment of the public, and permitting methods of fishing likely to lessen the supply of fish. In consequence of these complaints, the Secretary of State for Scotland recently appointed a Committee to inquire into the Crown's rights to the fishings, who took evidence from numerous witnesses, among whom were landowners, Crown tenants, fishermen, and officials of local Fishery Boards and Societies.

So far as the fishermen are concerned, it is apparent that their complaints are in the main directed as much against the Scotch fishery laws as the action of the Crown authorities. For instance, the Berwickshire fishermen are precluded by the Tweed Fishery Commissioners from using their old hang and bob nets ; and they allege that, owing to their inability to successfully manage bag-nets, the fishings have passed out of their hands into those of tenants from a distance. The Committee are of opinion that the prohibition of hang-nets should be repealed within the Tweed estuary, and recommend that local fishermen be allowed to fish on certain parts of the coast on payment of a license, subject, however, to the regulations of the Fishery Boards, who should issue the licenses and collect the payments, to be utilised for the benefit of the fisheries. Attention is, however, drawn to the fact that the Crown does not hold these fishings on behalf of the community ; and although the present revenue is paid into the public funds, it is only by virtue of an arrangement determinable on the death of the sovereign. The proposed system of licenses would have a serious effect upon the revenue, and there is

a further objection that local fishermen do not probably possess sufficient capital to work the fishings successfully, which capital it is surmised would be provided, and the profits monopolised, by middlemen.

It is obvious that fishing rights are of more value to adjacent owners of lands than to any one else, and these owners are consequently likely to pay a better price. The Crown authorities have no power to replenish fishing-grounds by artificial propagation, nor can they remove obstructions on the soil of private proprietors ; and these considerations form an argument in favour of selling the fishings to individuals who are probably able and desirous of making arrangements for improving them. Sales under such circumstances can hardly be deemed prejudicial to the public, more especially if the allegation be true that the Crown policy of development is actuated entirely by motives of revenue, and is tending to diminish the supply.

As regards inland waters the salmon-fishings in which belong to the Crown, the Committee are averse to gratuitously throwing them open to the public, for the reason that salmon-angling is a luxury which can only be had by paying for it. At the same time, they think that the policy of admitting the public to such waters on payment of a license might be advantageously considered.

The complaint that methods of fishing are permitted which are declared to lessen the supply of fish, amounts practically to an objection to the Crown tenants using methods which, while perfectly legitimate, yield a larger catch than was the case when local fishermen fished with more primitive contrivances. It is admitted that the salmon are now obtained in better condition for the market and that the supply is more regular. If fixed engines—that is, stake and bag nets—were abolished on the Crown fishings, it would simply mean that the proprietors of adjacent fishings not belonging to the Crown would reap a greater harvest than at present. In other words, the advantage would not be gained by the community, but rather by these proprietors ; and so long as stake and bag nets are allowed on adjoining fishings, it would seem to be an uncalled-for and unnecessary sacrifice on the part of the Crown to prohibit similar methods. To be equitable, the prohibition must be universal in its application to all the salmon-fishings in the sea around Scotland.

It may be observed in conclusion that the Committee are of opinion that energy and skill have been shown in developing this source of Crown revenue, as evidenced by the following figures. In 1849, when it appears the first serious effort was made to establish these Crown rights, there was only one tenant, paying a rent of five pounds ; whilst last year the rental was nearly six thousand pounds, paid by some one hundred and fifty tenants. In addition, there have been sales of fishings producing a sum of about thirty thousand pounds. The complaints to which we have referred, when submitted to scrutiny, resolve themselves into the fact that, in establishing the Crown's rights, the supposed rights of some individuals and the hitherto unchallenged practice of others have been interfered with ; and it is

pointed out that, had there been remissness in thus watching the Crown's interests, there would have been just grounds for charges of mal-administration or neglect.

#### HENDRIK SWANEPOEL'S PROMISED LAND.

##### CHAP. VI.—A DECLARATION AND A LION-HUNT.

ONE morning the two friends had wandered after breakfast to the pool near the baobab tree. Out there in the shade were some great easy-chairs ; and into one of these Bina had settled herself. Farquhar lay stretched on the short green turf at her feet. Bina sat in cool shadow, and her sun-bonnet lay upon her lap beneath her folded hands.

For the moment she was thinking ; her mind sought to grasp some of the wonders of that newly-revealed outer world, and her soft brown eyes gazed dreamily straight in front, seeing nothing. As Farquhar looked upwards at the fair girl and noted the deer-like carriage of the beautiful head, the wealth of golden-brown hair now caught up at the back, and fastened loosely upon the top—whose waving ripples, released from the constraint of the bonnet, strayed in splendour—the soft yet steadfast eyes sheltering beneath the dark and sweeping lashes, the lithe yet rounded form, he marvelled not now that he had been so smitten with amazement that morning when he had first set eyes on this pearl of the wilderness moving with free and springing footsteps through the woodland. That was more than two months ago, and ever since, day by day, hour by hour, the manifold graces of this girl, her sweet and faithful disposition, and acute mind, had grown before his eyes, until he knew now that for the first time love had got him by the heart.

He looked again admiringly at the sweet face. The sunbeams had certainly just touched the beautiful cheeks, but only to add, as with the peach, by the merest shadow of wholesome tan, to the warm but not too vivid colouring. He had half a mind to tell her then and there how he loved her. He was not sure, but he fancied that the answer might be as he wished. But Farquhar, like many another man as strong and resolute as himself, in the ordinary affairs of life, was on a matter like the present timid and mistrustful. And so, like many a million before him, instead of dashing straight for the battery, he turned and retreated, with the intention of bringing up more guns, or of ingloriously attacking the position from shelter or by stratagem.

‘Bina, let us stroll round and have a look at the pets ; I haven't seen them these last two mornings.’

‘Very well, Farquhar ;’ and the girl rose quickly, carrying in her hand her sun-bonnet, and went with him.

The antelope kraal lay on the other wing of the house ; to reach it they had to pass by the burying-ground, which, as with many a South African farm, lay but a little distance from the house. Here the first Swanepoel and two of his successors slept their last sleep. About sixty yards from the house, beneath the shelter of a

great yellow-wood tree, were three blocks of stone, and upon the largest of these was carved, in Dutch, evidently with great care and much toil—

HENDRIK JACOBUS SWANEPOEL, born in Drakenstein, Capeland, 1716, died at Swanepoel's Rest, Pleasant River, Back-country, Africa, 1795. ‘My flesh also shall rest in hope.’

The other stones bore the names of Hendrik's eldest son and descendants, with the dates of their respective births and deaths. These graves, fenced with low bushes, and thickly planted with flowers by Bina's hand, and especially Hendrik's, had always a curious interest for Farquhar. He stopped a moment, and then, as they moved away, said : ‘I think this Settlement of your great-great-grandfather's one of the strangest things I have seen in this strange land. I have come across some wonderful things up in Mashonaland—the workings of old mines, and remains of stone forts, built, probably, a thousand years ago ; and many another strange mystery ; but this valley of yours beats everything I ever heard of. I wonder if any of you will ever find your way back to the civilised world again ?’

A light flashed in the girl's eyes. ‘Oh, if we only could, I would give anything—yes, years of life, to see and know that world ! Perhaps, now you have been here, father may one day let some of us go down to the Capeland.’

‘And why not ?’ echoed Farquhar. Then he saw the opening he had desired. He spoke softly, but with intense earnestness. ‘But, Bina, why should you not come with me ? Why not ?—he hesitated for the final plunge—‘why not come as my wife ?—There ! it is out now ! I love you, Bina, my darling, have loved you since first I set eyes on you in the forest.’ Then, as his arm stole round her : ‘Could you care for me even so little, do you think ?’

The colour had faded a trifle from the girl's cheeks ; she looked troubled, overcome with the weight of joy that fell upon her heart. Then taking one of his hands and looking into his face, she said : ‘Ah, Farquhar, my heart of hearts, I love you, I fear, too, too much. I cannot help it, although I am not worthy of you.’

He drew her closer to him—their lips met in a long kiss, and then he kissed repeatedly her soft cheeks and white brow and her golden-brown hair.

The girl spoke first again. ‘But, Farquhar, I feel so much that, greatly though I love you, your life and mine are so different. I am so ignorant, so rude, that I should almost fear to let you marry me, for your own sake ; and yet I would try to make you a good wife, and you could teach me everything I need to know.’

Again Farquhar kissed the girl passionately as he replied : ‘My darling, you will be the best wife that man ever had ; I know it too surely.’

But suddenly, with half-amused, half-rueful face, exclaimed the girl : ‘Whatever will father and mother say ? All the love-making here is done by “op-sitting,” and here you have never asked them if you may “op-sit” with me and burn a candle.’

Boer courtships are carried on in this wise : The swain rides up to the house of his chosen fair dressed in his best toggery and well mounted ;

and having obtained permission from the parents when the family retires to rest—often in the same apartment—sits up (op-sits) with his amanuosa. So long as the candle with which he is furnished burns, so long may he his tale of love unfold. When it burns out, they must part and retire also.

Farquhar laughed long and heartily. 'All right, Bina. I will put that matter straight. Fancy my op-sitting!'

At that moment a call sounded from the house: 'Bina, Bina! where are you and Mynheer Murray? Come at once; there is a lion-hunt afoot, and he is wanted.'

At this news all Farquhar's hunter's blood was afame, and with Bina he hastened to the house. Outside, just by the doorway, squatted on his haunches, was a Bakotwa, waiting patiently, having brought in his report. His news was this. At one of Gert Swanepoel's cattle-posts outside the gate, three lions had overnight broken into the thorn-kraal and killed two heifers and a calf. Hearing the hubbub, the Bakotwa headsman in charge of the post had sallied from his hut, and had almost immediately been struck down by one of the lions and slain. More natives coming forth, had driven off the brutes, not, however, before they had carried away one of the heifers bodily.

When the news reached the Rust, a war of revenge was instantly proclaimed. A native runner had been despatched round the valley to call up some of the fighting 'bloods'; the old flint guns were taken down; the powder-horns and leatheren bullet-bags were filled; and meantime Farquhar, bringing out four of his rifles and some ammunition, busily prepared for action.

Within half an hour, six great Swanepoels, all mounted and eager for the fray, were mustered at the house; and with Gert, his eldest son, Farquhar and the Bakotwa set out for the scene of disaster. Bina had begged to be allowed to come too, but had been refused, and had retired to the garden. At a brisk canter, the men moved away, the Bakotwa running easily alongside. The gate was soon reached, and as they passed the Englishman's camp just outside, they drew rein for a moment while Farquhar's dogs were unloosed. The Bushman Aramap was, as a special favour, allowed to come also. Now they pushed on for the cattle-post. As they were approaching it, the sound of hoof-strokes was heard in the rear, and turning their heads, the party saw with astonishment Bina mounted on her pony flying towards them. Gert Swanepoel's brow was stormy, and as the girl rode into their midst he exclaimed: 'Bina, this is too bad! Why have you disobeyed me? I cannot have you running into danger. This is work for men, not for a pack of women.'

'Ah, father dear,' pleaded the girl, riding alongside and putting her whip-hand, with affectionate, precatory gesture, upon his arm, 'I pray you let me come this once, and I swear I will never ask again. You remember the last time a lion was killed, I was there, and no harm befell me. Springhaan is quick as the lightning, and I will keep well out of danger.'

Gert shrugged his broad shoulders and muttered: 'Well, remember, girl, this is the

last time, and I hope no harm may come of it. What would your mother say to me? I warrant she knew not you had come away.'

'No, father; I stole away,' replied the girl, with a blush. Then turning to Farquhar, who had shaken his head in strong disapproval, she continued: 'I will keep near you. See! I have brought your pistol, and now, who knows? I may see if my practice can be of use to me.'

As Farquhar looked, he saw fastened at her saddle-bow his revolver holster. Taking out the weapon, as they rode up to the kraal he loaded each chamber and again replaced it in the holster. 'Bina,' he said in a low tone, 'you have done very wrong to come; this is no work for you, and I hope to heaven we shall not get into a scrape. Whatever happens, I do beg of you to keep well behind; and ride for your life if the lions come for us. Never mind the shooting; we can attend to that.'

On reaching the kraal, they dismounted, and entered the dead Bakotwa's hut where the body lay. A glance showed some frightful wounds on the chest and head. The poor fellow's neck had been bitten clean through, and the spinal column severed. The dead heifers lay inside the kraal.

The marauders' 'spoor' was now fiercely taken up, and was easily followed for two miles into some light bush and scrub, where a halt had evidently been made, and part of the dead calf devoured. Thence the tracks ran down to the river, where the brutes had evidently taken shelter in a broad belt of dense reeds. The plan of attack was now quickly settled. Half the party, including Gert and his son—armed with two of Farquhar's rifles, in the use of which they were now fairly skilled—Farquhar himself, and the irrepressible Bina, rode down to a bend of the river where some rock cropped out from the soil and the reeds ceased for a space. The remainder halted where the lions had first entered.

Before riding down to the rocky open ground, where it was expected the lions would break covert, Farquhar had thrown his dogs into the reed-bed, and with clear voice, that now rang cheerily upon the still warm air, urged them to the attack. Following the usual practice of Dutch hunters, the men of both parties had all, except one of each band, dismounted, and stood ready for shooting; while their horses, with their heads turned away from the supposed quarter of danger where the quarry would issue, were held by their reins by the hunter remaining mounted. Bina sat quietly on her pony, some fifty yards away.

The dogs were not long in finding the vicinity of their dreaded neighbours, and after loud baying for a few moments as the scent grew hot, suddenly, when they had thrust their passage some way down the reeds, emerged, fleeing in hot haste from covert. Following close upon them, the head and shoulders of a young male lion, nearly full grown, but not fully maned, showed from among the green and yellow reeds, then disappeared, evidently driven in by the sight of human and, to him, probably dangerous enemies. Farquhar now ran quickly towards the dogs, and with many a

'Hoick in there, Mungo!—At him again, Nelson!—Hoick to him, good Rufus!' and loud encouragement to the rest of his now somewhat sobered pack, at length persuaded them to enter the reeds again. Then he ran back to the post of danger. Now there is a scuffle, the reeds shake ominously to and fro right in the centre, there is fierce loud barking, then yell of anguish.

'Ah! that's Towler's voice. Poor old chap; I'm afraid he's done for,' cries Farquhar.

Again the reeds crash and shake. Something is moving quickly towards the bottom corner, and is now out in the open! A yellow form flashes forth from the shelter, and makes for the rising rocky ground. Four out of the half-dozen guns roar as with one voice; and the yellow form the same instant turns over upon its side five-and-twenty paces distant, gives a few frantic struggles, and lies dead. Hurrah! it is the lioness. One murdering thief accounted for! With eyes intently watching the reed-bed and the two yet loaded rifles ready in front of them, the four men quickly reload, and are ready again. Again, by dint of much alternate encouragement and rating, the dogs move to the assault; there is another charge inside, and more yells of canine anguish strike upon the air. At length, after another quarter of an hour, there is a sudden rush up hill, a hurried movement of the Boers stationed there towards the river, vehement shouting, three or four shots apparently into the water, and then presently a native runs down with tidings that the young lion has taken to the river, and although more than once wounded, has made good his retreat to the other side.

Once again, the plucky hounds, now reduced by two slain and with another sorely wounded, are cheered into the covert. But it is a forlorn hope, deadly and dangerous, as the poor faithful brutes well know. Inside there, as all men are aware, there yet lurks the great male lion, known by his mighty spoor, and he by this time must be raised to a pitch of anger and desperation rather awful to contemplate. But the men flinch not from their task; they have all been at the game before, and have long since discounted the risk they run, and the lion's blood they mean having at all hazard.

Twenty long minutes elapse, and although the hounds bay fiercely and angrily and approach as near to their foe as they durst, he moves not. At length, gathering more courage, they charge in a body; and with a roar and a mighty splash of the reeds, the wrathful brute comes forth. For one instant he stands motionless, his dark mane—for he is a black-maned lion—marking him out distinctly against the greenish-yellow background of reeds, and four rifles flame out at him at forty paces. Baring his great teeth and growling horribly with pain and rage, the monster flashes out straight for the little knot of hunters. The Boers, who have emptied their weapons, meanwhile have retreated behind their horses to reload, and Farquhar is left standing alone. He still has his two barrels loaded, and as the lion comes on, fires coolly, straight for his chest, first one barrel then almost instantly the other. It is a dangerous chance, and for the moment it succeeds: the lion rolls over on the sand, but,

quick as thought, is up again, and has launched himself at that solitary figure that thus dares to oppose him. Farquhar swings round to escape. Too late! Before he can avoid the danger, he is flung senseless and bleeding to earth; and the lion now stands over him, one huge paw with its claws unsheathed grasping his shoulder. It was an awful moment, and they who beheld the scene never forgot it. The fierce brute glaring in the most devilish wrath, his gleaming teeth exposed, the blood streaming from his lungs and mouth, and yet erect in ferocious pride and majesty, faced the remainder of his adversaries, hesitating whether to attack them or to finish off the victim lying in his power. All this had happened in the space of thirty seconds.

But while the first shots were fired, Bina had been able no longer to restrain herself from the battle. She had approached the group, and seeing her lover's deadly peril, had leapt from her pony and run, revolver in hand, towards his prostrate form. She was now within fifteen paces of the lion. Seeing her danger, three of the Boers, who had hastily reloaded, shamed into forgetfulness of fear, ran up, and just as the lion turned to spring again, and as Bina levelled her revolver and pulled the trigger, they too fired. The bullets took effect, and with a horrible throaty groan, the great brute sank dead beside the body of his foeman. The danger was past; but to make sure, the two other rifles, which had now been brought up, were discharged into the tawny recumbent form. Before the smoke had cleared away Bina had run forward, and half-raising the heavy insensible form of the Englishman, had in her love and fear—utterly forgetful of those around her—tenderly kissed the poor pale cheeks and brow. The men gathered round her with astonished looks, her father with a bent brow, for this conduct seemed not quite maid-only.

An examination proved that Farquhar's heart still beat feebly, and that no very serious flesh-wounds had been inflicted. The weight of the lion, the velocity of his spring, and the fearful shock with which he had struck the Englishman to earth, had stunned and all but killed him. But, as the Dutchmen had seen, Farquhar's last bullet—which it was afterwards found had raked the heart and lungs—had unsteadied the brute and unsettled his aim. Thus Farquhar had been stricken obliquely, and by only a part of the lion's body. If he had received the full shock, he must have been a dead man.

Tenderly and sadly—for the Englishman had won all hearts by his pluck and daring—the rude farmers carried him, still senseless, up to the kraal, and thence through the gateway to Gert's house. It was a tedious procession; and do what they could, although they halted now and again and strove hard to bring back life to the mute form, they carried him into the house at last still unconscious. As for Bina, she directed their movements and nursed the sufferer's head when the halts were made. No tear or sign of weakness escaped her. Brandy was administered, and cold-water fomentation and bandages constantly applied to the head; but still the senses lay dormant. All the remainder of that day and the next, and great part of the following day, Farquhar lay in a death-like trance, the faintest

movement of the pulse and heart alone betraying that life still tarried within him. On the afternoon of the third day, Gert Swanepoel sent down again for Johannes Swanepoel, the Predikant, who, in accordance with the rules of the Settlement, had acquired and practised such rude surgery as tradition had bequeathed to him. Finally, after much discussion, it was resolved to let blood, and a vein was opened. Within an hour, faint symptoms of returning consciousness showed themselves; towards sunset the nerves of the face moved; stronger respirations came and went, and finally the poor eyes, so long dulled as if in death, opened. Then Bina ran to her bedchamber and burst into a flood of tears, which mightily relieved her long-pent emotions; and then, after a fervent prayer to God, she got up with a lighter heart, and returned to the bedside.

For a week Farquhar lay betwixt life and death; fever set in, and only by such simple remedies as the Predikant could devise, and by the tender and incessant nursing of Bina, was the struggle ended in favour of life. But, the crucial danger past, Farquhar's strong constitution stood to him manfully; and in three weeks more he had turned the corner and was recovering.

#### THE BURNT TOWN OF TOKAY.

THE historic Hungarian town of Tokay, which gives its name to the celebrated wine, was burnt to the ground in the month of August this year, some twenty houses only remaining from the cruel wreck, which left five thousand people homeless.

Besides being the centre of a busy industry, it is a very interesting district, and has been closely associated with some of the most important events in Hungary's troubled but romantic history. Long before the Magyar was heard of in the chronicle of nations, these sunny slopes were cultivated as vineyards, the vine having been introduced by the Emperor Probus during the Roman occupation of the country. In the ninth century, when the warlike Magyar hosts arrived in Pannonia under the guidance of Alom and his son Arpad, they crossed the Theiss under the shadow of the hill of Tokay, and laid claim to the land as the heirs-general of Attila. Their only title-deeds were some legends about a cup of water from the Danube, and a little grass from the plain; but the scales of justice were weighted with the heavy sword of the conqueror, and henceforth the Slavs, Roumanians, and such of the Bulgarians as remained, became subject to the Magyar race. The Hungarians, as the invaders now called themselves, were not slow in developing the resources of their newly-acquired country: the mountains produced iron, copper, and precious stones; the vast plain afforded the richest pasture; and above all, it was a region where the finest wines could be grown.

The unique quality of the Tokay district for vine-culture is due to the soil. The Hegyalia, as it is locally called, is the southern spur of an extended region of trachyte and other volcanic debris, beginning at Eperies, and terminating

in the conical hill of Tokay, which protrudes like a steep fortress into the great plain. This sentinel rock was in far-off times a bluff headland, knee-deep in the waters of the inland sea which existed in this part of Europe before the Danube had made a way for itself through the Pass of Kasan and the Iron Gates. But that was a very long time ago, counting by centuries, though comparatively modern, geologically considered.

Our interest centres just now in the historic vineyards of Tokay; and we learn that the district suffered from rude vicissitudes in the thirteenth century, when the Mongols from Tartary poured in their savage hordes on a peaceful, well-settled, and now Christian country. The king of Hungary, Bela IV., in the thirteenth century, did all in his power to keep back the barbarians, but in vain; for they carried their devastations through the length and breadth of the land. The memory of those evil days still exists, as one may learn from the sayings of the people. 'What the Tartar are you about?' is a common expletive. Naughty children are threatened with the Tartars. But there is a story often repeated of a Hungarian compassionating his enemy. He saw his handsome wife, who had a very sharp tongue, being carried off by the marauders, and he exclaimed: 'Alas, poor Tartar!'

Fortunately for Hungary, the death of the great Khan recalled the leader of this invasion back to Tartary, where he had his own game to play, and the country was once more at peace. In the restoration of things, Bela IV. was mindful of the Tokay vineyards. He imported from Italy a colony of well-skilled vine-growers; and from this time the wine of the Hegyalia had its distinct and special reputation. To give some idea of the value of these vineyards in the middle ages, it is on record that the tithe of the wine, which King Stephen had granted to the Bishops of Erlau, was reckoned in 1380 to be worth ten thousand pieces of gold.

Down to the middle of this century, when great territorial changes took place in Hungary, the rich vineyards of Tokay were largely held by the king—that is to say the Emperor of Austria—and by the bishops and magnates of the land. The Church especially took care to have its share. There is a story told that, in 1562, George Dreskorics, Bishop of Fünfkirchen, who had a vine-garden at Tallya, a favoured spot near Tokay, when assisting at the Council of Trent, presented the Pope with some of his wine. His Holiness on tasting it pronounced it to be nectar, surpassing all other wines, exclaiming: 'Summum Pontificem talia vina decent.'

The Tokay vintage begins generally in the third week in October, but sometimes even later, and there is a saying that the wine brought home on sledges is the best. Practically speaking there are three kinds of wine made in the district, all from the same grapes, but varying, according to the conditions of the vintage. The 'Essenz,' or Imperial Tokay, is made of the dried berries that have cracked in September, retaining all their saccharine matter; and then being carefully selected, are placed in tubs with spigot holes, through which the juice is allowed to

run from the weight of the fruit only, no pressure being used. It takes years of careful watching before this luscious liquid becomes drinkable wine, and, as a matter of fact, it rarely or never gets into the hands of the merchant. The Ausbruch, which is really the wine generally received as Tokay, is itself a costly product, even in the district itself. It is made by a certain admixture of dried berries with the wine-must of a good vintage. It is supposed to possess remarkable restorative properties in sickness and old age. Another quality is the 'Dry Tokay' (Szamordni), which has the bouquet and strength of the former wines without their sweetness. In making this kind the grapes are pressed as they come from the vineyard without any separation or addition of dried berries. The proportion of alcohol is from twelve to fifteen per cent.

These Tokay wines can be kept to almost any age. At the death of the late Sir Walter C. Trevelyan, the well-known teetotaler, in 1879, Tokay wine in perfect preservation was found in his cellar, which wine had been brought to England by Lady Mary Wortley Montagu in the first half of last century.

In the play of 'High Life below Stairs,' the butler offers his guest anything from 'humble port to Imperial Tokay.' And from many contemporary allusions, there is reason to believe that the wine was better known in England in the last century than in this. Gouverneur Morris in his Diary, written during the French Revolution, mentions having bought at a cheap grocery shop in Paris a quantity of Imperial Tokay for twenty-five cents a bottle. This had been stolen from one of the royal palaces, and was known to have been a wedding present of Maria Theresa to her daughter, Marie-Antoinette. A footnote adds that Mr Morris had sent this, together with other wines, to America, and that the cork of the last bottle, sealed with the double-headed eagle of Austria, was opened on the occasion of a wedding party in New York in 1848.

This identical year of 1848, the great year of European revolutions, brought many changes to Hungary—permanent changes, which have recast her social condition. Formerly, the magnates had everything their own way; they had been in the habit of coming with their overbearing retinues to make merry at the Tokay vintage; the fruits of the earth were for them, and not for the serf, whose neck was under the heel of the noble. But the dawn of a new day was breaking. At the little town of Monok, Louis Kossuth was born, in the year 1802. He grew up to be a reformer, as we know; and there were many who shared his views, even amongst the privileged classes—good men and true, such as Counts Bethlen, Teleki, Wesselényi, Baron Eötvös, and the great patriot Széchenyi. The story of those days is well known, with all its lights and shades, its mistakes and failures, and its final issue of conciliation and political success, under the guiding hand of the revered Deák. It is all in the newspapers of yesterday; but what a gulf separates the freedom of to-day from the dark and evil past of only forty years ago!

The material results of 1848 were tremendous in Hungary. The session lands of the serfs, held

on the intolerable condition of forced labour, became henceforth their freehold property, and eight millions of serfs received their freedom!

There is no part of Hungary, perhaps, where such a division of property exists as on the slopes of the Tokay hills. The easy and inexpensive transfer of land and the registration of titles to estates, which obtain in Hungary, has helped to promote this state of things. The peasant greatly affects his acre or two of vineyard; the savings of many a long year have been treasured up to buy this source of income for his old age. But, alas! a scourge has fallen on the land, a scourge far worse than the devastating hordes of Tartars, for it is an unseen insect which destroys root and branch of the precious vine, the mainstay of the peasant's industry. The phylloxera made its decided appearance in this district about four years ago, and has already wrought terrible destruction. Unless the Tokay wine-grower be rich enough and patient enough to replant with American vines, there is nothing short of ruin before him. There is a tradition in the country that twice in the lapse of centuries the vines of the Hegyalia have been destroyed, but no written records exist to prove of what nature was the visitation.

It is curious that the true Magyar race, who speak the purest Hungarian, and are the peasant proprietors in the county of Zemplin, form but a small proportion of the dwellers in the town of Tokay. It is not possible to find a more mixed population. To begin with, there are, or were, seventeen hundred Jews, many of them of the poorest class, late importations from the Marmaros Mountains. There are Armenian merchants and Szeklers; German traders from the Zips; Saxons from Transylvania; Slovaks and Roumanians. The Galician Poles are the servants of the community; and there is to be found the inevitable gypsy, who is the tinker, carrier, and above all, the musician of Hungary.

#### WARNED BY A MOUSE.

##### I.

THE old manor-house at Barton-Bridge, although one of the quaintest and most picturesque houses in this side of the county, was not half so well known as it deserved to be. Cut off from the high-road by a clump of ancient and well-wooded wych-elms, the few travellers who passed by the plantation gates plodded or drove wearily up on the steep hill beyond it, reached the top, admired the view away across the valley of the Bar, and little dreamed of what a curious old mansion lay hidden among the trees.

Its master and owner, John Trowbridge, was an old-fashioned bachelor, who prided himself on three good things—old books, old wine, and old friends; and though he had few of the last, and their visits were few and far between, he always boasted that they were 'enough for him, and enough was as good as a feast.' It was a lonely place, too, ten miles from the county town, and six from the station; while the whole hamlet of Barton consisted of about a

score of cottages, all clustered round the tiny church, half a mile down the valley below. The Squire, therefore—as he was everywhere called—when not busy in his library, troubled his head about few things beyond his own domain, lived in a royal sort of cosy comfort on half his income; and gave up most of his time and thoughts to the care of his niece and ward, Miss Grace Rivington, declaring at times she was the plague of his life; and at others, that without her he didn't know what would become of Barton manor. Left an orphan when a mere child, with a fortune of twenty thousand pounds on coming of age, she had grown up at last to be as wilful, high-spirited, and charming a young lady as could be found in all the county-side. In short she was the old man's pet, and managed by dint of coaxing, flattery, and scolding to have her own way 'in things little or big,' as John Trowbridge often confessed. His favourite name for her was, 'the little witch'; 'a wee body, but with a mind and a spirit in it big enough and determined enough to manage the most fussy and troublesome horse in the stable, or out of it.'

These were the two who sat chatting together one wintry evening in November, on the day of her coming of age, when, contrary to all custom in such cases, and in defiance of his urgent entreaty, she had insisted on having no dinner-party and no birthday celebration; but a quiet time 'just for us two,' she said; 'and I can have you all to myself.' Dinner was over, the wine and walnuts were on the table, and that was wheeled up to the blazing wood-fire; Graves, the butler, had departed, and at last she could speak freely.

'My dear, dear uncle,' said she, 'there never, never was, and never will be, anything half so beautiful as the necklace you gave me this morning. I had it in my pocket all dinner-time, and was longing to look at it the whole time.—But why did you spend so much money?'

'Why, my dear? Well, because you are such a naughty, ill-tempered, ugly little shrimp; and I determined that people should look at your diamonds to-morrow, if they wouldn't look at you. As to money, child, I only had them reset; they were my mother's fifty years ago, and her mother's before that—wedding present from that old Jack Trowbridge whose eyes are now looking down at you from the other side of the room. "Gentleman Jack" they used to call him when he came back from India and brought the diamonds with him.'

'Look!' she said, taking them out of the dainty morocco case—'see, how they shine in the light of the fire! I shall be as grand as a queen to-morrow night at the ball; and in that lovely dress from Paris, O uncle! the very happiest girl in Cornwall! What can I say, what can I do, to thank you—the dearest, goodest, wisest of old uncles?'

'Well, if you won't have any more wine, Miss Grace Rivington, say good-night; be off to bed, and lock up your necklace in a safe place, and keep the key in your own pocket. You'll have a thousand things to do to-morrow; so go now

and get your Beauty-sleep, that you may look your best at night. Half the women will go crazy at the sight of your necklace and gay feathers; and all the men about your lovely face.—But mind, the first quadrille is for me.'

They chatted on for a while, and she playfully reminded him that only a month before he had utterly refused to have a dance at the manor-house, or to let the place be turned upside down for any such nonsense. 'And now,' she added, 'here you are decking me out like a queen, and begging for a quadrille!'

'You're a witch, my dear, neither more nor less, and you know it; and I am an old goose, and don't know it; so, good-night.'

In less than an hour from that time the diamonds were safely locked up in an old oak cabinet, and the happy owner, like most of the household, sound asleep, and dreaming of all the joys of the coming morrow.

The morrow came, as most to-morrows do, in good season, heavy with clouds at first, but slowly breaking out into sunshine at last. Miss Grace Rivington, after her Beauty-sleep, came down radiant to breakfast; and that being over, sent off a special messenger to her special friend Florence, at the Grange, with the following brief note:

MY DEAR FLORRIE—Come over at once, if only for half an hour, and you shall see the loveliest necklace to be found in Cornwall. I am to wear it to-night.  
G. R.

It was but a short walk from the Grange to the manor-house, and in less than an hour after the despatch of the note, the two friends were in full talk by the side of a roaring wood-fire in Grace's own sanctum, a cosy, snug room, with oak paneling and old oak furniture, which opened out upon the lawn. The two girls were in high spirits; the necklace was duly admired, looked at again and again, carefully put away, and locked up; and then came the discussion of dresses, laces, and partners, about which last point there was a considerable difference of opinion, as great almost as the difference in the personal appearance of the ladies themselves. In that difference, in fact, lay the strength of the friendship. Florrie was a tall dark brunette, with an abundance of black hair; a loud, rather masculine voice, and a still more masculine manner, dress, and tastes.

'And now, Grace,' she said at last, 'put away all the fal-lals, and I'll tell you all about yesterday's doings, when you shut yourself up like a hermit, instead of being out in the finest run for the season. There were four of us from the Grange, and about twenty other red-coats, besides Charlie Burton and a couple of militia-men; and we went straight away for Barton Edge, a downright spin of fifty minutes without a check. Then we ran him in, and killed in the open. Coming back, we found again—another forty minutes; lost him, and then home by the harvest-field, where Jack and I and the two militaries went in for a rat-hunt with a couple of terriers.'

'Glad you enjoyed it, my dear; but no rats for me; I hate the very sight of one. The mice behind this old wainscot are bad enough, and terrify me out of my wits sometimes. I am

actually afraid of them, and uncle won't have a single cat in the place, so that we are fairly overrun with them. Ten to one, if I only open the door of the old press, out flies a mouse, and away I go as fast as my legs will carry me.'

'O Grace! what a coward; afraid of a mouse! Never mind, dear; with that necklace on to-night, you'll carry all before you—red coats and black, old staggers and young dandies; they'll all fall in love with that charming little witch of a face of yours. You won't be afraid of them, mice or no mice. I shall stand no chance; but it's time for me to be off; so, good-bye, my dear, until eight P.M.—I shall come early. I'll go out by the window and cut across the lawn.'

## II.

It was six o'clock P.M., and Grace Rivington, after an early dinner, had gone up to her own room for the important and laborious work of dressing for her first ball. It had been a fine calm day for November; the fire of wood had all but died out, and the window was still ajar as her friend had left it in the morning. But as it grew darker and colder, and the serious business of the night had to be begun, Grace closed and fastened it, and going to the opposite side of the room, sat down in front of a large cheval glass, and, as many a pretty girl has done before, took a calm survey of herself, and determined to wear the white dress. As she looked at the glass, into which the flickering fire now and then threw a fitful touch of light, she was suddenly startled by a slight rustling sound behind her, as a mouse dashed out and scampered across the floor; and then, turning her head, she saw, to her utter horror, a pair of eyes watching her from one corner of the room, among the curtains, where the mouse had sprung out!

For a moment she was utterly paralysed with dread; and not daring, or able, to move, was about to cry out for help. Luckily for her, the cry was stifled; and then, with a sort of desperate courage, she turned back to her old position, and again looked into the glass, as if nothing had happened. At the very first glance, the two terrible eyes seemed to be still fixed on her from among the dark folds of the curtain; and she shuddered as she looked. It was clearly some scoundrel who had hidden himself there for some plan of robbery, and her life for the moment was in his hands; and all depended on her success or failure in lulling him into a belief that his presence had not been detected.

After a minute of sharp thought, her usual resource will prevailed; her courage rose, and her plan was formed. Without rising from her chair, she drew up to her side a small writing-table, calmly lighted a wax candle, and began writing a series of pretended notes, sealing and addressing each, as if for the post. Over the fourth of these notes she seemed to take much trouble, and, as if not satisfied with it, began to read aloud short bits of it as she went on, with an occasional word of comment: 'We depend on your being here, my dear Jennie, in good time to-night, whatever the weather be; and I send this by a special messenger to say that we shall keep you until to-morrow. I have heaps of birthday presents to show you, and the loveliest diamond necklace.' As she

uttered these last words, she suddenly stopped, and said, as if in a whisper to herself: 'Why, what a goose I am! Old Foster the jeweller has never sent back the rings and necklace, though he faithfully promised I should have them in good time this morning. Jane must go for them at once, or I shall not get them in time.'

Then, having sealed up and directed the last of her pretended notes, she walked with trembling steps to the bell-rope, pulled it, waited for a moment, and next unlocked a drawer and took out her jewel-case. As she did so, the door opened, and the servant appeared. 'Jane,' said her mistress, 'tell Richard to take this note to the Grange, and this to Dr Forbes's at once. There are no answers; but as he comes back, call at Foster the watchmaker's with the other note, and ask for my rings and necklace which he had to clean. As it's getting late, he had better take the pony. The necklace he can put into this box; Foster has the key.' And with these words she handed to the servant her precious jewel-case. In another moment the door was shut, and Grace once more alone, with the pair of eyes watching her intently from behind the curtain.

The owner of the eyes had seen and heard all that had happened, and though slightly puzzled, thought it best not to move as yet; especially as he saw that the young lady was calmly going on with her toilet and had lighted two wax candles.

Meanwhile, Jane herself was slightly puzzled, but, being a well-trained servant, obeyed her mistress's orders. 'Here, Richard,' said she; 'Miss Grace says you're to take the pony as sharp as you can and leave these notes at the Grange and at old Forbes's; and as you come back, call at Foster's for some rings and a necklace that's to go into this case.'

In five minutes he was on his way. The three notes he carried with him were duly delivered, and read with amazement by the recipients. The one to Dr Forbes ran thus:

MY DEAR DOCTOR—Don't be alarmed though I beg you to come straight to the manor-house when you have read this. Say nothing to the servants, but make your way quietly up to the Oak Room, where I wait your coming. Uncle is away at the magistrates' meeting. Lose not a moment.

GRACE RIVINGTON.

The second note was this:

MY DEAREST FLORRIE—A mouse has got into the Oak Room, and here I am a prisoner; send your two brothers *at once* to deliver me—*at once*.—Ever your affectionate

GRACE.

Foster the watchmaker, utterly and hopelessly puzzled, read as follows:

Mr Foster, take the box which the bearer will give you to Barnet, the parish constable; tell him to bring it here to the manor-house *at once*.

G. RIVINGTON.

Old Forbes was the first to recover from his amazement and, after a moment's thought, to hurry down from his surgery and rush out of the house—armed with a case of instruments and his biggest stick—without a word to wife or servants, or to himself, but, 'What on earth is

that witch of a girl up to now?' He ran as hard as he could, and in ten minutes, red-hot and breathless, reached the hall door of the manor-house, where he was well known.

'Parker,' said he to the astonished footman, 'Miss Grace says I am to go straight to her room without being announced. I know my way.' Then he walked quietly up-stairs and knocked at the door of the Oak Room, and at once entered.

His patient, with a pale face, and her long hair streaming down over her shoulders, was sitting in a low chair in front of the mirror; the fire had died out into white ashes, and the dim light of the two wax candles left half the room in darkness.

'Grace, what has happened? Are you ill—here, all alone?'

And then came a dead silence, more terrible than any speech. She tried to speak, but for many minutes the effort was vain, and ended in a few broken sobs and still more broken words. While the agony of suspense and fear lasted, she had bravely kept up her courage; but now with safety had come the reaction. Her nerves, after being strung up to the highest pitch, suddenly collapsed; and the doctor was fairly puzzled. But at last, after a sharp effort, came an intelligible sound, and she stammered out: 'Not ill, doctor, not ill; and not alone; he is there behind the curtains!'

Before he could ask 'Who or what is behind the curtains?' out stepped Mr Sikes, to answer for himself, a common roadside tramp of the lowest order, who that very morning had begged for broken victuals at the kitchen door and been rewarded with beer in honour of the day. 'All right, governor,' says Sikes; 'you needn't make no fuss. I ain't done no harm to the young lady; and the winder bein' open, you see, I only come in to get a rest.'

But at this moment there was a sudden and tremendous clatter on the stairs, and in rushed not only the two brothers from the Grange and the parish constable, but the whole troop of terrified servants. In the midst, however, of all the noisy confusion, congratulations, and outeries that followed, Sikes continued his speech, with the same unblushing impudence as he had begun it: 'And to think, now, of being took in by that there young gal, a-knowin' all the time that I was behind the curtains, and she ready to drop at a mouse!'

When Grace had reluctantly swallowed a glass of wine, recovered herself enough to tell her brief story and regain her birthday necklace, then arose a fierce discussion as to what was to be done with Mr Sikes.

'Constable,' said the old doctor, 'tie that fellow's hands behind him and lock him up in the Clink until the Squire comes home; and first give him a good ducking in the horse-pond.'

But then the vagabond altered his tune, and put on such a piteous look, and told such a miserable whining tale of starvation and misery, that Grace's voice prevailed; though he did not escape his taste of the pond.

'Let him go, let him go,' she said; 'and take him away at once, before the Squire comes back, which he may do at any minute.—And now, all my dear good friends, a thousand thanks to you,

every one! But begone, all of you, for the clock has struck seven, and I have to be dressed before eight!'

In spite of all difficulties, however, Miss Grace Rivington, in her white dress and wearing her diamond necklace, was the admiration of all beholders that night at the ball. She danced many dances, and not a few with Charlie Burton, who after his marriage told me this true story.

#### AN HYDRAULIC RAILWAY.

THE idea of a railway in which the carriages should be propelled by hydraulic power, whilst the resistance due to friction on the rails should be greatly reduced by the substitution of sliding surfaces for wheels, a film of water being at all times interposed between slides and rail, is due to Monsieur Girard, an eminent French hydraulic engineer, and dates some forty years back. Shortly before the outbreak of the Franco-German War, Monsieur Girard commenced the construction of a line on his system between Paris and Argenteuil; but during the hostilities that ensued the works were destroyed and the engineer killed. Owing to Monsieur Girard's death, the invention fell into abeyance, until recently revived by Monsieur Barré, a former colleague. At the Paris Exhibition of 1889, a short line on this system attracted considerable interest; whilst no visitor to the Exhibition held in Edinburgh in 1890 can have failed to notice this novel innovation in the modes of rapid transit.

Before passing to an examination of the special features of the invention, and its advantages and adaptability under general or exceptional conditions of working or surroundings, we will briefly lay before our readers a succinct account of the general principle of the new railway.

Two particular points of novelty claim attention—the sliding surfaces in substitution for wheels, and the means of propulsion. Dealing first with the 'patins' or sliding surfaces, each carriage is fitted with four or six sliding shoes, which glide along a broad flat rail, a thin film of water being continually forced by hydraulic pressure between the shoe and the upper surface of the rail, so that the carriage may be said to float along its rails; the motion closely resembling the pleasant easy passage of a sledge across smooth ice. It may here be noted that Monsieur Girard at the commencement of his experiments proposed to float his carriages on compressed air, but speedily abandoned this medium in favour of water under pressure, as a means of reducing to the lowest practicable limit the friction between the supports of his carriages and the rails bearing them. The quantity of water required to maintain a constant film between the 'patin' and rail-surface is necessarily very considerable, and is supplied by a tender accompanying the train, and charged with pressure at intervals. In the case of trains running considerable distances, a steam-engine is required on the tender to maintain the requisite pressure without stoppage.

Without going into minute technical details as to the shoes, we may state that every precaution

has been taken in their design to minimise the consumption of water; and that arrangements are made all along the line for catching the expended water in troughs, with a view to its subsequent utilisation.

Turning, now, to the means of propulsion. Each carriage is furnished beneath its seats with what may be termed a straight turbine, that is, a stout bar running the greater part of its length, and furnished on either side with a series of cup-like recesses in front of each other, and comparable to a water-wheel whose circumference has been flattened, and to which a second water-wheel similarly treated has been secured back to back. Jets placed at intervals along the line, and under considerable hydraulic pressure, impinge on these series of cups, and impart great impetus to the carriages. Ingenious arrangements are made for opening and closing the jets. A lever placed in front of the train opens the jets as it passes over them, whilst a similar mechanical contrivance placed at the rear of the train closes the jets when the train has duly passed over them.

Into the numerous devices and adjustments requisite to secure the efficient working of this part of the gliding railway, it is foreign to our purpose to enter; sufficient to point out that great mechanical resource has been brought to bear on these details; and the regularity and efficacy with which they have operated in the lines already laid down on this system testify abundantly to the skill and ability of the designers.

A special feature in connection with the vehicles employed on the new class of railway now under consideration—we had almost said 'rolling stock'—is their lightness. Owing to the entire absence of all jar, shock, and vibration, the carriages admit of considerably less solid framing than in the case of their prototypes on ordinary lines. Not only does a considerable saving in first cost result from such economy in construction, but a permanent reduction in dead-weight to be hauled forms a favourable item in the advantages of the invention.

A further feature of economy is the saving of all oil and grease required for lubricating the wheels, an item of cost in the working expenses of railways which would fairly astonish those unacquainted with the heavy sums annually disbursed by our leading lines for such comparatively minor stores.

The excellent and efficient brake-power inherent to the gliding railway deserves some passing notice, as it entirely obviates any necessity for other brakes, being in itself both ample and speedy. Nothing further is requisite beyond stopping the flow of water between the gliding shoe and the rail, the friction between shoe and rails on dispersion of the film of water usually between them being quite sufficient to bring the train to a stand-still in a very short time.

Amongst the special advantages claimed by its introducers for this new competitor as a means of popular locomotion, we have already mentioned the absence of all vibration and jar, together with side rolling motion; to these may be added the pleasant gliding motion, comparable to sleighing over ice, and the absence of

all noise, dust, and smoke. The inventors are sanguine of attaining as high a speed as one hundred and twenty miles per hour, with the greatest facility for bringing the train quickly to a stand-still.

These qualifications would appear to eminently fit the gliding railway for service in cities and tunnels, where noise and smoke form so serious a drawback; and we understand that the new project has been favourably regarded by so great an authority on railway matters as Sir Edward Watkin, whose connection with the underground railways of London and with the proposed Channel Tunnel doubtless indicates that he has recognised the advantages which would accrue to these important undertakings from the adoption of a means of locomotion at once noiseless, smokeless, and expeditious.

It would, in conclusion, be idle to assume that the new railway will not have its difficulties to contend with; the working of so much hydraulic plant in severe frosts must of necessity be faced and overcome; and the question of cost, both as regards maintenance and working expenses, will require careful examination.

The means of locomotion in large cities are many and various, and each year seems to increase their number, from the magnificent overhead railways of New York to what a French writer has described as 'les affreux souterrains du Métropolitain de Londres.' We have, moreover, tramways of every class—drawn by horses, steam, or electric engines; or, again, by cables—all of which closely compete with vehicular traffic and steamboat service for our carrying-trade. Amongst such numerous and powerful rivals, the progress of the new hydraulic gliding railway will be watched with no small interest, and its career will be followed, not merely by engineers, but by the public at large with keen attention.

#### IN THE NIGHT.

As I enter the shadowy portals of Night,

To stray in her solitudes vast,  
Pale Memory whispers a vanished delight,  
And summons a shade from the past.

Lo! my Marguerite plays: the sweet passion and skill  
That we loved speak again in her art.  
How the strains of her violin sound, at her will,  
Like the chords of a human heart!

It is only a dream, such as travellers say  
Thirst gives in the lands of the sun;  
And the sad, sweet face and the form pass away—  
The music and glory are done!

I call on my love in grief's passionate words,  
If only one moment, to stay;  
But all that I hear is the twitter of birds  
That wake in the morning gray.

Where the far-distant Alps seem a cloud-land of snow,  
Are a lake, and a valley so fair,  
And a sculptured stone, with its record of woe,  
To tell she is sleeping there.

W. GOW GREGOR.

Printed and Published by W. & R. CHAMBERS, Limited,  
47 Paternoster Row, LONDON; and EDINBURGH.